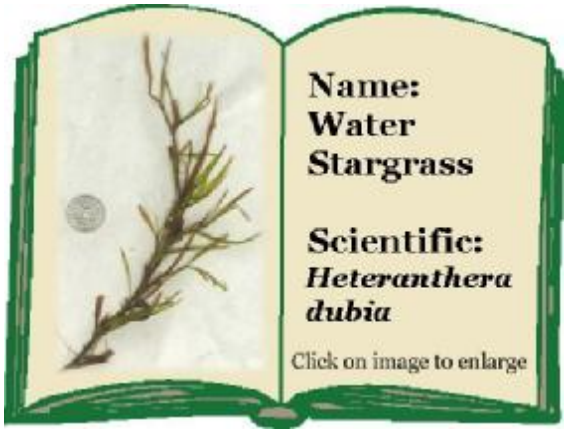
Water Stargrass Fact Sheet

Description:
Water stargrass (*Heteranthera dubia)* is a species of submerged aquatic vegetation that is native to the Chesapeake Bay. It has grass-like leaves that do not have a distinct vein in the center. The leaves are arranged **alternately** on branching stems which may be as much as 2 meters (6 feet) long. The base of each leaf wraps around the stem. In the summer, stargrass produces characteristic bright yellow, star-shaped flowers that give the plant its name.



Distribution:
Water stargrass is found in freshwater areas of the Bay and its tributaries. It is also found in lakes and ponds. It is rarely found in tidal waters although it has been found in the upper tidal Potomac River. Unlike other SAV, water stargrass can also grow on land if pieces of the plant break off and wash ashore.

Reproduction:
Water stargrass reproduces both sexually and asexually.

Sexual reproduction: In the summer, water stargrass produces tiny, bright yellow star-shaped flowers with six narrow petals. The flowers grow on long thin stalks that emerge above the surface of the water. The flowers can either self-pollinate or the pollen is spread to other flowers. The seeds are produced in the late summer and fall and new plants grow in the spring.

Asexual reproduction: Asexual reproduction occurs throughout the growing season when pieces of the plant break off. The pieces will overwinter in the sediment and sprout in the spring.

Importance:
The leaves and stems of water stargrass are eaten by waterfowl. The plant also serves as a habitat for numerous species of invertebrates which in turn are food for other animals such as amphibians, reptiles and ducks. In addition, like all SAV, stargrass provides an increased oxygen supply for aquatic animals and acts as a nutrient buffer by using dissolved nitrogen and phosphorus for growth. This helps reduce algae blooms by making the nutrients unavailable for the algae.

Vocabulary:

Alternate (alternately) *– not arranged in pairs; leaves alternate direction along the stem*
Asexual reproduction *– in plants, reproduction by cell division rather than by seeds; also called vegetative reproduction*
Sexual reproduction *– in plants, reproduction by means of seeds*

Example of alternately arranged leaves.

Water Stargrass
Read for Understanding Questions

1. Why is *Heteranthera dubia* called “stargrass”?

2. How would you recognize water stargrass?

3. Wild celery, redhead grass and other species of SAV are found in both tidal fresh water and slightly brackish water. How does water stargrass differ?

4. Water stargrass can grow somewhere unusual for SAV. Where is it?

5. Describe asexual reproduction in water stargrass.

Water Stargrass
Read for Understanding Answers

1. Why is *Heteranthera dubia* called "stargrass"? *It is called stargrass because it produces small, yellow, star-shaped flowers.*

2. How would you recognize water stargrass? *Water stargrass has long branching stems that can be as much as six feet long. The leaves are grass-like with no distinct center vein and the base of each leaf wraps around the stem. The leaves are arranged alternately on the stem.*

3. Wild celery, redhead grass and other species of SAV are found in both tidal fresh water and slightly brackish water. How does water stargrass differ? *Water stargrass is different from some other species of SAV like wild celery because water stargrass only grows in fresh water. It also is very seldom found in tidal water.*

4. Water stargrass can grow somewhere unusual for SAV. Where is it? *Water stargrass can grow on land if pieces of the plant wash on shore.*

5. Describe asexual reproduction in water stargrass. *Asexual reproduction occurs when pieces of the plant break off and settle into the sediment. The pieces spend the winter in the sediment and then sprout new plants in the spring.*